

**Listing of Claims:**

1. (Original) An apparatus which comprises two components which are displaceable relative to one another, a position visualization unit which is provided on one component of the apparatus, or on a part which is connected thereto, an image acquisition unit which is provided on the other component of the apparatus, or to a part which is connected thereto, in order to acquire images of a segment of the position visualization unit which changes due to a relative motion between the components of the apparatus, and an evaluation unit for extracting position information from the images.
2. (Original) An apparatus as claimed in claim 1, comprising a reference mark which is visible in the images and is attached to the image acquisition unit.
3. (Original) An apparatus as claimed in claim 1, comprising a position visualization unit which is constructed in the form of a measuring tape.
4. (Original) An apparatus as claimed in claim 1, in which a relative motion occurs which extends along a substantially straight line, and which comprises a position visualization unit which is arranged parallel to said straight line.
5. (Original) An apparatus as claimed in claim 1, comprising a position visualization unit which is arranged along a circular line, one of the components of the apparatus being journaled so as to be rotatable.
6. (Original) An apparatus as claimed in claim 1, comprising a position visualization unit on a tape-like carrier.

7. (Original) An apparatus as claimed in claim 6, comprising a tape-like carrier which is connected on the one side to the one component of the apparatus and on the other side to a roller which is mounted on the other component of the apparatus, said carrier being wound onto or unwound from the roller as a result of the relative motion.

8. (Original) An apparatus as claimed in claim 1, comprising illumination means for illuminating the acquisition zone.

9. (Currently Amended) An apparatus as claimed in claim 1, comprising an image acquisition unit in the form of a ~~CCD~~ charge-coupled device camera.

10. (Original) An X-ray apparatus which comprises two components which are displaceable relative to one another, a position visualization unit which is provided on one component of the apparatus, or on a part which is connected thereto, an image acquisition unit which is provided on the second component of the apparatus, or on a part which is connected thereto, in order to acquire images of a segment of the position visualization unit which changes due to the motion, and an evaluation unit for extracting position information from the images.

11. (Original) An X-ray apparatus as claimed in claim 10, characterized in that an X-ray source is arranged on the one component or the other component of the apparatus.